

# HIGH NITRATE /NITRITE PROBE

HNA SERIES



## FEATURES & BENEFITS

- Affordable real-time nitrate ( $\text{NO}_3$ ) and nitrite ( $\text{NO}_2$ ) monitoring
- Ideal for monitoring high levels of nitrate and nitrite
- Multiple wavelength sensor uses patent-pending technology for superior measurement performance
- Robust submersible probe with titanium or stainless steel housing
- Operator friendly, low-maintenance UV and Visible LED design
- Reagent free optical measurements
- Simple to install and operate

MUNICIPAL DRINKING WATER  
MUNICIPAL WASTEWATER  
INDUSTRIAL PROCESS WATER  
INDUSTRIAL WASTEWATER

WATER QUALITY  
MONITORING  
SOLUTIONS

## REAL-TIME MONITORING SOLUTION

### High Nitrate/Nitrite Probe

Real Tech's robust submersible High Nitrate/Nitrite Probe provides affordable real-time measurement of high levels of nitrate ( $\text{NO}_3$ ) and nitrite ( $\text{NO}_2$ ) in water or wastewater. The probe's rugged body is built to withstand harsh environments, with titanium or stainless steel options. Designed to meet the needs of many monitoring applications, the HNA series offers multiple path length selections for the desired measurement range.

### Controllers and Accessories

Our innovative modular product platform ensures our clients gain the real-time water quality monitoring system that meets their specific demands and budget. With multiple controller and accessory options available such as automatic compressed air cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality monitoring needs.

### Liquid Ai Compatible

Our Liquid Ai data services complement our real-time water quality monitoring systems. Our Remote Monitoring platform is a powerful data management and visualization tool that enables access to data anywhere, anytime.

## MEASUREMENT PRINCIPLE

Real Tech's High Nitrate/Nitrite Probe utilizes patent-pending technology to provide superior measurement performance across multiple wavelengths of light using UV and Visible LEDs. Many compounds absorb light in the UV-VIS spectrum, and how much the compounds absorb is directly proportional to their concentration. Compounds that may interfere with nitrate and nitrite measurement are compensated for using additional reference wavelengths. Real Tech's innovative High Nitrate/Nitrite Probe is advancing wastewater management.

**REALTECH**  
INC.



# HIGH NITRATE/NITRITE PROBE SPECIFICATIONS

| CHARACTERISTIC   | TECHNICAL DATA  |
|------------------|---|
| Path Length      | 1, 2, 4, 10 mm  |
| Parameters       | Nitrate (NO <sub>3</sub> ) and nitrite (NO <sub>2</sub> )                               |
| Range            | Depends on model selected. Refer to range chart.  |
| Accuracy         | ± 0.5% full scale   |
| Units            | mg/L, ppm   |
| Sampling Time    | 10 seconds  |
| Calibration      | Factory calibrated. Field adjustment of calibration is possible.                        |
| Cleaning         | Automatic compressed air or pressurized water cleaning with optional Probe Clean System |
| Self-Diagnostics | Detection and diagnosis of internal system fault  |
| Alarms           | Continuous detection of leaks, lamp output, humidity, temperature and electrical fault  |
| Humidity Control | Humidity sensor with desiccant pack   |
| Wavelength       | UV and visible light wavelengths  |
| Light Source     | UV and VIS LED  |
| Electrical/Comm. | From controller   |
| Operating Temp.  | 0 to 45°C (32 to 113°F)   |
| Housing Material | Titanium or stainless steel   |
| Wetted Materials | Titanium, Epoxy, Sapphire, SS 316L, Viton   |
| Weight           | 4.6 lb  |
| Dimensions       | 15" H x 2.0" Diameter   |
| Warranty         | 2-year limited warranty (Extended care packages available)                              |

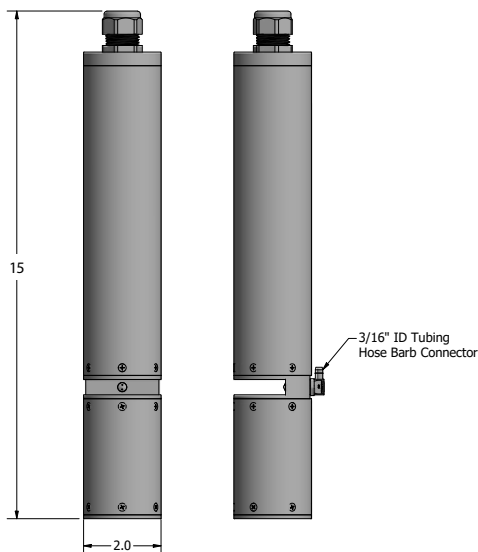
\* Technical Specifications are subject to change without notice.

\* Operating (water) temperature absolute maximum 55°C (131°F). Instrument performance reduced when operating outside recommended operating range. Contact Real Tech to verify application.

## DIMENSIONS

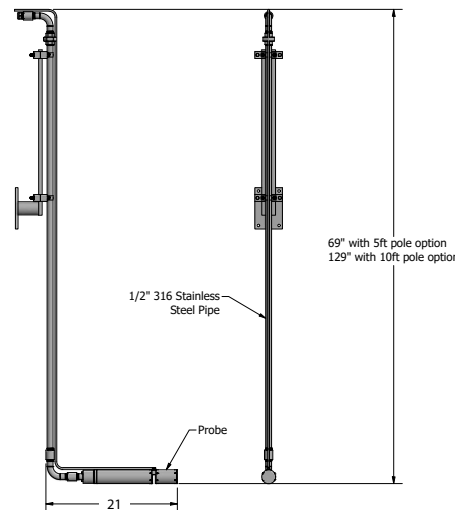
The high nitrate/nitrite probe is a submersible instrument installed directly in-situ using a pole mounting kit or chain mount.

### DIMENSIONS FOR HIGH NITRATE/NITRITE PROBE



### MOUNTING FOR HIGH NITRATE/NITRITE PROBE

#### Pole mount



#### Chain mount



## PROBE MODELS & RANGE

Includes titanium (-X) or stainless steel (-S) high nitrate/nitrite probe sensor and 35 feet of communication cable. Controller, mounting kit and cleaning system sold separately.

| MODEL#                | PATH LENGTH | NO <sub>3</sub> -N mg/L | NO <sub>3</sub> mg/L | NO <sub>2</sub> -N mg/L | NO <sub>2</sub> mg/L |
|-----------------------|-------------|-------------------------|----------------------|-------------------------|----------------------|
| HNA-X2010 / HNA-S2010 | 1 mm        | 100 - 20,000            | 450 - 88,000         | 30 - 6000               | 100 - 20,000         |
| HNA-X2020 / HNA-S2020 | 2 mm        | 50 - 10,000             | 225 - 44,000         | 15 - 3000               | 50 - 10,000          |
| HNA-X2040 / HNA-S2040 | 4 mm        | 25 - 5000               | 110 - 22,000         | 7.5 - 1500              | 25 - 5000            |
| HNA-X2100 / HNA-S2100 | 10 mm       | 10 - 2000               | 45 - 8800            | 3 - 600                 | 10 - 2000            |

\* Stated ranges are based on testing in deionized water. Site specific conditions, such as interfering substances in the water, may limit the measuring range and accuracy. Please contact Real Tech to confirm model selection.

## CONTROLLERS

| PRODUCT # | NAME                | DESCRIPTION   |
|-----------|---------------------|---|
| S-169000  | Real Controller     | Wall mounted controller with 4-line x 20-character back lit LCD display           |
| S-11TPC   | Real Controller Pro | Wall mounted controller with touch panel PC interface (PC inside cabinet model)   |
| S-11TPCD  | Real Controller Pro | Wall mounted controller with touch panel PC interface (PC external on door model) |

## ACCESSORIES

| PRODUCT # | NAME                   | DESCRIPTION   |
|-----------|------------------------|---|
| S-228070  | Probe Clean System     | Cleaning valve module requires on-site compressed air or pressured water for automatic probe cleaning                             |
| S-228080  | Compressed Air System  | Compressor for air cleaning when compressed air not available on-site   |
| S-219081  | Probe Mounting Kit I   | Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. No pole included.  |
| S-219082  | Probe Mounting Kit II  | Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. 5' pole included.  |
| S-219083  | Probe Mounting Kit III | Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. 10' pole included. |
| S-229085  | Chain Mount            | Stainless steel chain for mounting probe in open channel  |

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